CONSTRUCTION LEADERS

TRAFFIC CONTROL PLAN

HILLCREST SOLAR

Revision Log

Date	Revised By	Section	Description
August 29, 2019	Chris Lupson		Traffic Control First Draft
September 3, 2019	Chris Lupson		TMJ review
September 13, 2019	Chris Lupson	All	Owner Comments review

Contents

1. TRAFFIC CONTROL PLAN

1.1. INTRODUCTION

As required under local jurisdictions for Construction Projects as required, the Hillcrest Solar project has developed this Traffic Protection Plan to:

- Provide protection for workers who may be endangered by vehicular traffic;
- Provide written instruction for Temporary Traffic Control Person(s)(TTCP);
- Protect vehicular and/or pedestrian traffic that may travel on:
  - HWY 68 and Hwy 286
  - HWY 286 and Driver-Collins Rd
  - Greenbush East and Hwy 68
  - Greenbush East and Driver-Collins Rd
  - Moon Rd
  - Mount Rd
  - Mobley Rd and Hwy 286
  - Clements Rd
- Provide consideration to the most convenient route for vehicular and/or pedestrian traffic throughout the duration of this project.

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2. LEADERSHIP AND ADMINISTRATION

The purpose of this Section is to define the responsibilities of PCL, Subcontractor Supervision and any workers who will directly oversee or perform any temporary traffic control operations on this project. It is the responsibility of PCL Project Management, PCL Supervision and Subcontractor Supervision to ensure that all workers in their respected areas have been oriented to this plan.

2.1. PCL (CONSTRUCTOR)

As outlined in the Construction Regulations:

Every **employer** shall develop in writing and implement a traffic protection plan for the employers' workers at a project if any of them may be exposed to a hazard from vehicular traffic.

The traffic protection plan;

(a) shall specify the vehicular traffic hazards and the measures described in subsection (2) to be used to protect workers; and

(b) shall be kept at the project and made available to an inspector or a worker on request.

Every project shall be planned and organized so that vehicles, machines and equipment are not operated in reverse or are operated in reverse as little as possible.

(2) Vehicles, machines and equipment at a project shall not be operated in reverse unless there is no practical alternative to doing so.

(3) Operators of vehicles, machines and equipment shall be assisted by signalers if either of the following applies:

1) The operator's view of the intended path of travel is obstructed.
2) A person could be endangered by the vehicle, machine or equipment or by its load.

(4) Also applies to shovels, backhoes and similar excavating machines and to cranes and similar hoisting devices.

(5) The operator and the signaler shall;

(a) jointly establish the procedures by which the signaler assists the operator, and

(b) follow those procedures.

(6) If equipment reversing is required on-site, signs shall be posted at the project in conspicuous places warning workers of the danger.

2.2. SUBCONTRACTOR SUPERVISOR(S) RESPONSIBILITIES

Subcontractor supervision shall be knowledgeable of this project-specific Traffic Protection Plan and ensure that all workers in their respected areas have been oriented to this plan.

27. (1) A **supervisor** shall ensure that a worker,

    (a) works in the manner and with the protective devices, measures and procedures as required; and
    (b) uses or wears the equipment, protective devices or clothing that the worker's employer requires to be used or worn.

28. (2) Supervisor shall,

    (a) advise a worker of the existence of any potential or actual danger to the health or safety of the worker of which the supervisor is aware;
    (b) where so prescribed, provide a worker with written instructions as to the measures and procedures to be taken for protection of the worker; and
    (c) take every precaution reasonable in the circumstances for the protection of a worker.

Subcontractor supervision is responsible for, but not limited to:

- Ensuring any workers who are performing work as a Temporary Traffic Control Person (TTCP) under their supervision comply with this project-specific Traffic Protection Plan;
- Immediately report to the Project Superintendent any contravention(s) or concern(s) with the project-specific Traffic Protection Plan; and
- Provide upon request by PCL Project Management/Supervision or an Inspector:
- Proof of training records for all personnel involved with temporary traffic control operations;
- Proof that this project-specific Traffic Protection Plan has been reviewed with all workers who will be performing work as a Temporary Traffic Control Person.

2.3. Worker (Temporary Traffic Control Person) Responsibilities

As outlined in the Construction Regulations:

(1) This section applies with respect to directing vehicular traffic that may be a hazard to workers on a public way.

(2) A worker shall not direct vehicular traffic for more than one lane in the same direction;

(3) A worker shall not direct vehicular traffic if the normal posted speed limit of the public way is more than 55 Miles per hour;

(4) A worker who is required to direct vehicular traffic,

(c) shall be a competent worker;
(d) shall not perform any other work while directing vehicular traffic;
(e) shall be positioned in such a way that he or she is endangered as little as possible by vehicular traffic; and
(f) shall be given adequate written and oral instructions, in a language that he or she understands, with respect to directing vehicular traffic, and those instructions shall include a description of the signals that are to be used.

All workers shall be knowledgeable of this project-specific Traffic Protection Plan and work deliveries the standards and guidelines provided within.

In addition, all workers who serve as TTCP on this project will be responsible for but not limited to;

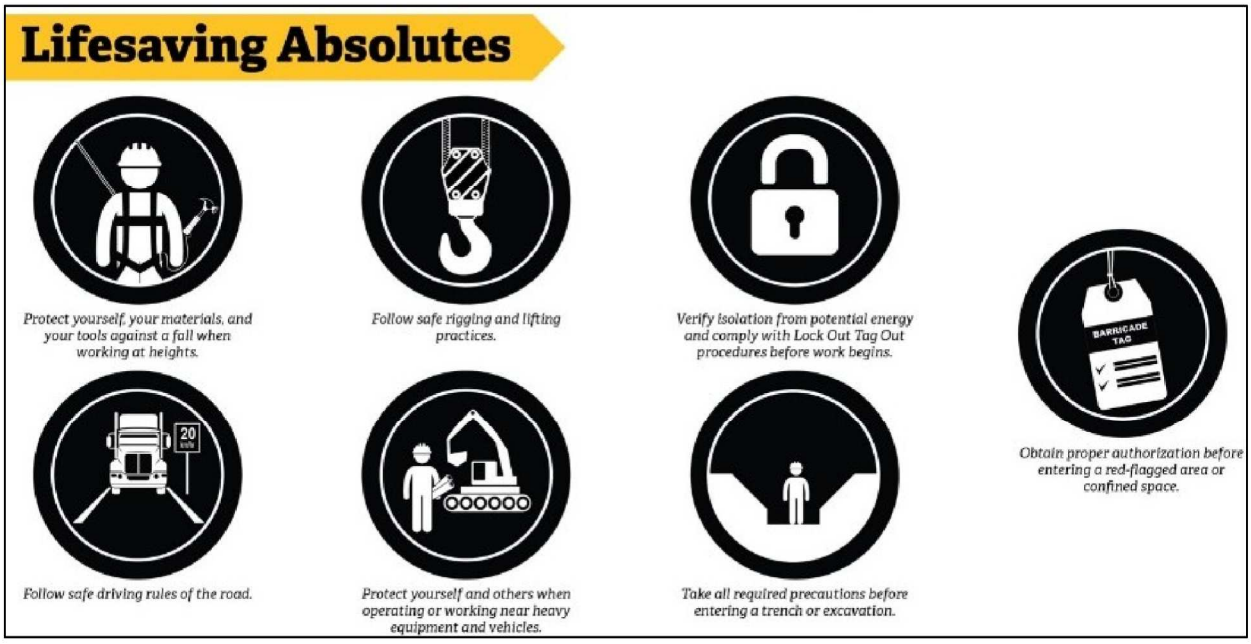
- Immediately reporting to the Project Superintendent any contravention(s) or concern(s) with the project-specific Traffic Protection Plan; and
- Proof of training records for all personnel involved with temporary traffic control operations.

Please refer to Appendix C for Ohio Guidelines for Traffic Control. If the TTCP cannot perform the work due to the regulation above, PCL will refer to its Lifesaving Absolutes and develop a plan to eliminate the hazards (Change the route) or implement a device (light or Police directed traffic) to safely complete the job.

3. LIFESAVING ABSOLUTES

The Lifesaving Absolutes were identified through trends in recordable incidents and are considered non-negotiable guidelines for safety.

Subcontractors who have scopes of work that involve any of the following Lifesaving Absolutes are required to submit and communicate a JHA as per Section 5.5 Job Hazard Analysis of the Hillcrest Solar Project HSE Plan.



4. PERSONAL PROTECTIVE EQUIPMENT

The purpose of PPE is to provide an effective barrier between a worker and potentially dangerous objects, substances and processes. Each subcontractor is responsible for equipping their workers and employees with the minimum required PPE as outlined within the Hillcrest Solar Project HSE Plan. In addition, each subcontractor is responsible to ensure that all workers have been properly equipped with appropriate task-specific PPE and trained in its use/maintenance as required.

4.1. TASK-SPECIFIC PPE FOR TEMPORARY TRAFFIC CONTROL PERSON(S)

As outlined in the ANSI/ISEA:

High Visibility Clothing For daytime, flaggers shall wear high-visibility safety apparel that meets the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled “American National Standard for HighVisibility Apparel and Headwear” and labelled as meeting the ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. The apparel background (outer) material colour shall be fluorescent orange-

red, fluorescent yellow-green, or a combination of the two as defined in the ANSI standard. The retroreflective material shall be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colours, and shall be visible at a minimum distance of 1000 feet. The retroreflective safety apparel shall be designed to clearly identify the wearer as a person.


Class 2 Garments


Class 3 Garments

4.2. Task-Specific Tools/Equipment for Temporary Traffic Control Person(s)

As outlined in the Ohio Department of Transportation. See Appendix C for Guidelines.

5. GENERAL PROJECT GUIDELINES FOR TEMPORARY TRAFFIC CONTROL PERSON(S) - TTCP

TTCP's on the Hillcrest Solar are to follow these general project requirements:

- Your health and safety is a top priority. At all times, be mindful of the environment in which you have been asked to direct/assist vehicular and pedestrian traffic.

- Plan an emergency exit strategy that is free of obstructions and potential slip/trip hazards in the event that you need to react quickly. Obstructions could include, but are not limited to:
  - Jersey barriers, guardrails, traffic delineation devices, fencing;
  - Parked vehicles, equipment or machinery;
  - Stockpiled materials; and
  - Fixed/temporary structures such as existing buildings or gate shacks.

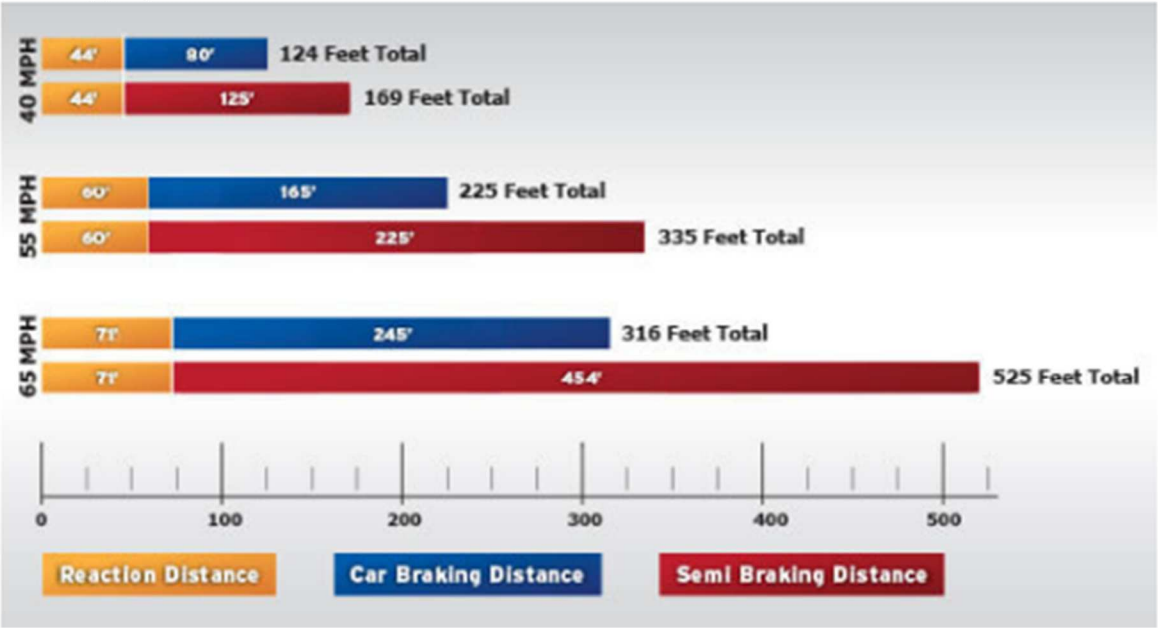
- Be alert and stand while on duty. Never sit down as this could impede your response time and ability to react to avoid personal injury caused by vehicles and/or equipment. The use of personal phones, radios or other electronic devices is strictly prohibited while on duty.

- Always face oncoming traffic and never turn your back to moving vehicles and/or equipment.

- Consider the environment in which you are working and how it may impede the reaction time of any motorists, pedestrians or operators. Examples include but are not limited to:
  - Curves in the roadway;
  - Hills before or after your assigned position;
  - Posted speed limits on the roadway or intended path of travel;
  - Weather conditions (wet/slippery roads from rain/snow/ice vs dry conditions); and
  - Lighting (consider potential glare caused by sunrise and sunset).

  The following illustrates how long it takes to stop driving an average-sized vehicle:

Total Stopping Distances



- When possible, ensure that you are standing alone and avoid mingling with other workers on the project as this may cause motorists, pedestrians or operators to lose sight of your signals and/or direction.

- Position yourself just outside of the traffic lane or intended path of travel to avoid potential struck-by injuries.

- Consider potential blind spots of motorists, pedestrians or operators while giving signals. Always maintain eye contact with the motorist or operator you are directing to ensure understanding and compliance with your signals and/or direction.

- Verify that the appropriate temporary traffic control signage is in place *prior* to taking your position on any public roadway. The signage required is referred to as a **TC-21** (as shown below) and must be removed or covered when a TTCP is not present to control traffic. This includes break periods.

- Be alert for any oncoming emergency vehicles that have priority rights. Take the necessary actions to allow them to safely pass through your designated area as quickly as possible.

- Be aware of high pedestrian traffic areas such as school bus/public transit stops. Remember that most of these utilize a consistent schedule through the week.

- Coordinate your operations with any nearby traffic control signal systems like railway crossings, pedestrian crosswalks, intersection lighting and not override or conflict with them.

- Scheduled break periods are to be coordinated with your immediate supervisor. Only another competent worker that has been adequately trained and who is wearing the appropriate task specific PPE for a TTCP can relieve you of this position.

  DO NOT leave your designated traffic control position unattended at any time.

- Visitors, Delivery Drivers and Vendors entering the project must be directed to the PCL project office. This is required to ensure they sign-in and sign-out, complete the necessary project-specific HSE Orientation and report to the responsible primary contact on the project.

- Anyone entering the prescribed area in which Personal Protective Equipment is required, must comply with the Hillcrest Solar Project HSE Plan. As a TTCP, you have the authority to withhold workers and visitors from entering the project without the minimum PPE requirements.

- The project perimeter fencing is to be maintained as per the project Plot Plan unless otherwise directed or approved by the PCL project Superintendent. The set-up and design of the perimeter fencing has been established to maintain project security at all times.

- Complete a daily review of the Traffic Protection Plan, Project Plot Plan and daily PSI to ensure you are knowledgeable of current project conditions, hazards and controls.

- Designated gates are to be kept closed unless there is a steady flow of traffic in/out of the project. Speak with the PCL project Superintendent for details on anticipated traffic flow.

- In the event of an emergency, immediately contact your supervisor.

Depending on the nature of the emergency or incident, there may be a requirement to clear the area or direct vehicular or pedestrian traffic to an alternate location. Follow the direction of the PCL Superintendent, PCL Emergency Response Team Lead or your immediate Supervisor. If all three are not available please inform the PCL Assistant supervisor or HSE representative

- In the event that you are subjected to any form of workplace violence, harassment, discrimination or issues pertaining to compliance with this project specific Traffic Protection Plan by any worker, visitor, vendor or member of the general public, contact your immediate supervisor.

  DO NOT engage or provoke the situation any further. You will be held accountable for your actions.

- Remember that while working as a TTCP on this project, you could be required to directly interact with the general public. Be cautious of any gestures or comments made while on duty as you represent PCL and will be held accountable for your actions at all time

5.1.1. TRAFFIC CONTROL ON PUBLIC ROADS

Workers can be endangered on projects adjacent to, or on, public roads. The main hazards involve placing traffic control devices on the roadway and working alongside moving traffic.

The best way to prevent hazards from the motoring public is to plan the work site carefully beforehand. Consider traffic control devices, access and egress, signage, timing of work, and worker training.

5.1.2. TRAFFIC CONTROL DEVICES

Signs will be posted at entrances to advise drivers and operators that a signaler will be required to guide vehicles wherever the view of the intended path is obstructed, or workers may be in danger.

6. PROJECT SPECIFIC CONSIDERATIONS

The following section of the Hillcrest Solar Traffic Protection Plan has been developed to outline project-specific details including:

- Project Plot Plan-See Appendix A
- Primary Roadway(s) or Intersection(s)-See 6.2 Detailed Description

6.1. PROJECT PLOT PLAN / PROJECT SPECIFIC TRAFFIC PLAN

A project-specific Plot Plan has been developed to communicate the following to all workers and visitors to the Hillcrest Solar project;

- Adjacent streets or intersections;
- Access gates;
- Perimeter fencing configuration;
- Emergency assembly area(s)/muster point(s);
- PCL project office and Subcontractor offices (if applicable);
- First aid kits;
- Spill kit(s);
- Designated storage / laydown area (if applicable); and
- Project-specific information.

A copy of the project-specific Plot Plan will be posted on the project safety bulletin board.

6.2. Fisher Report Detailed Road Description

Description of Primary Roadway(s) or Intersection(s) Connected to Project

Street or Road Name: 1 – HWY 286 - East of US Route 68 2 – Greenbush East – East of US Route 68	**Designated Access/Egress Gate Involved:** 1- Gate 1 Southside of RD, Gate 2 North Side, and Gate 3 South Side 2- Gate 4 North Side of RD
Lane Description: 1 – Two Lane State RD travelling East/West 2- Two Lane County Route Traveling East/West	**The direction of Traffic Flow:** Both are East/West traffic flow
Anticipated Traffic Volume: 1 – AADT 0-500 2 – AADT 5000-25,000	**Anticipated Peak Periods of Traffic Volume:** March – June Peak Months
Physical Characteristics: Greenbush East – 19-22.5’ Wide – Fair, small cracking and Potholes Moon Rd – 15’-20’ Wide – Excellent, recently paved Clements Rd – 12’-17’ Wide - Excellent, recently paved	**Nearby Intersections:** HWY 286 - US Route 68 Greenbush East – US Route 68
Driver-Collins Rd South – 14’-18.5’ – Fair, small cracking Driver-Collins Rd North – 14-18.5’ Wide – Good condition	
Unique Considerations: Culvert Cover and Conditions - Clements RD 1’ cover where the road dead-ends – See attached AC1 - Greenbush east RD. 60’ concrete pipe less than 1’ cover – See Attached AC2 and AC3 - Driver-Collins Rd and Mount Rd. Small cracking in the asphalt @ culvert – See attached AC4 Load Restrictions Greenbush Rd East 50% load restriction Feb 1 – June 1.	
Temporary Traffic Control Person(s) Required:	
Tools and Equipment Required: N/A	
Additional Signage or Delineation Devices Required: No Construction Vehicle Signs Required HWY 286 – Minnick Rd HWY 286 – Clements Rd HWY 286 – Dietrick Rd US Route 68 – Greenbush East	

Traffic Control Activity: Posted Signs of Caution - Moon Rd and Mont Rd "Roadway prone to flooding." Action – advise with toolbox talk or daily PSI to the overnight dangers of potential flooding. Overhead Clearance - No issues at site. PCL will post signs at all locations where overhead wires are located. Load Restrictions - Greenbush Rd East 50% load restriction Feb 1 – June 1.
Traffic Control Activity Hazards:
Specific / Additional TTCP Instructions to Control Hazards: School Bus Route - Schedule major delivery during the afternoon at 10 am -2 pm times During school hours

7. PERMITS

7.1. CHECKLIST BEFORE ANY MAJOR DELIVERY

- Coordinate with the appropriate authority regarding any temporary or permanent road closures, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. Coordination shall include, but not be limited to, the county engineer, the Ohio Department of Transportation, local law enforcement, and health and safety officials. PCL shall detail this coordination as part of a final traffic plan and submitted to Hillcrest Solar 1 LLC before the preconstruction conference for review and confirmation that it complies with this condition.
- Criteria to be taken into consideration;
    - School Bus Route
    - Emergency Service Responder Information / Emergency Response Plan
    - Traffic Routes Load Bearing and Structural Rating Information
    - Road Surface Type and Widths
    - Culver Cover and Conditions
    - Posted Signs of Caution
    - Overhead Clearance
    - Traffic and Transportation Mitigation Measures
    - Monitoring of Roads during construction to assess potholing and deterioration and address repairs/ improvements
    - Road Use and Restoration Agreements

8. MATERIAL DELIVERY

8.1. TRUCKING ROUTES INFO SUBJECTED TO CHANGE

- Prior to all deliveries, PCL will conduct detailed investigation of road integrity along routes designated. Timeline for reporting damage and commencing repairs (20 days)
- Only county roads, bridges and culverts shown on the Project Transportation Route and construction entrances shown in the Road Study Map (Appendix A) should be utilized for access to the project site from any county road.
- Shall Notify County Highway Superintendent in advance of any oversize loads.
- If road closures are required, PCL must give minimum advance notice of 24 hours to County Engineer.
- PCL will start setting up the delivery routes to the laydown areas, using the Exhibit E traffic study for best routes. To coordinate the delivery to the correct gates PCL, prior to the delivery, will highlight a map (see appendix *Traffic Gate Plot Plan)* and communicate to the delivery company.
- All major deliveries to Hillcrest Solar will be directed to the Yellow highlighted gate markers. All Red gates will have a PCL rep standing by to perform the delivery orientation (See appendix for sample orientation form) and coordinate the delivery.
- Major delivery routes will be coordinated using;
    - US Route 68
    - State Route 286
- Roads to be reviewed and signs applied as secondary roads; Marked as Orange highlighted gates, these gates are to be utilized by light construction vehicles or telehandlers with loads. No major deliveries will be routed along these paths.
    - Brown County – Greenbush East Road
    - Green Township – Clements road, Driver Collins road, Mount road, Moon road, Mobley Road
- Maintenance as per The Road Use Agreement section 4(b) will be completed (as needed) during construction. Maintenance items may include;
    - Mud cleaning/street cleaning
    - Sign removal or damage repair
    - Dust control
    - Snow Clearing

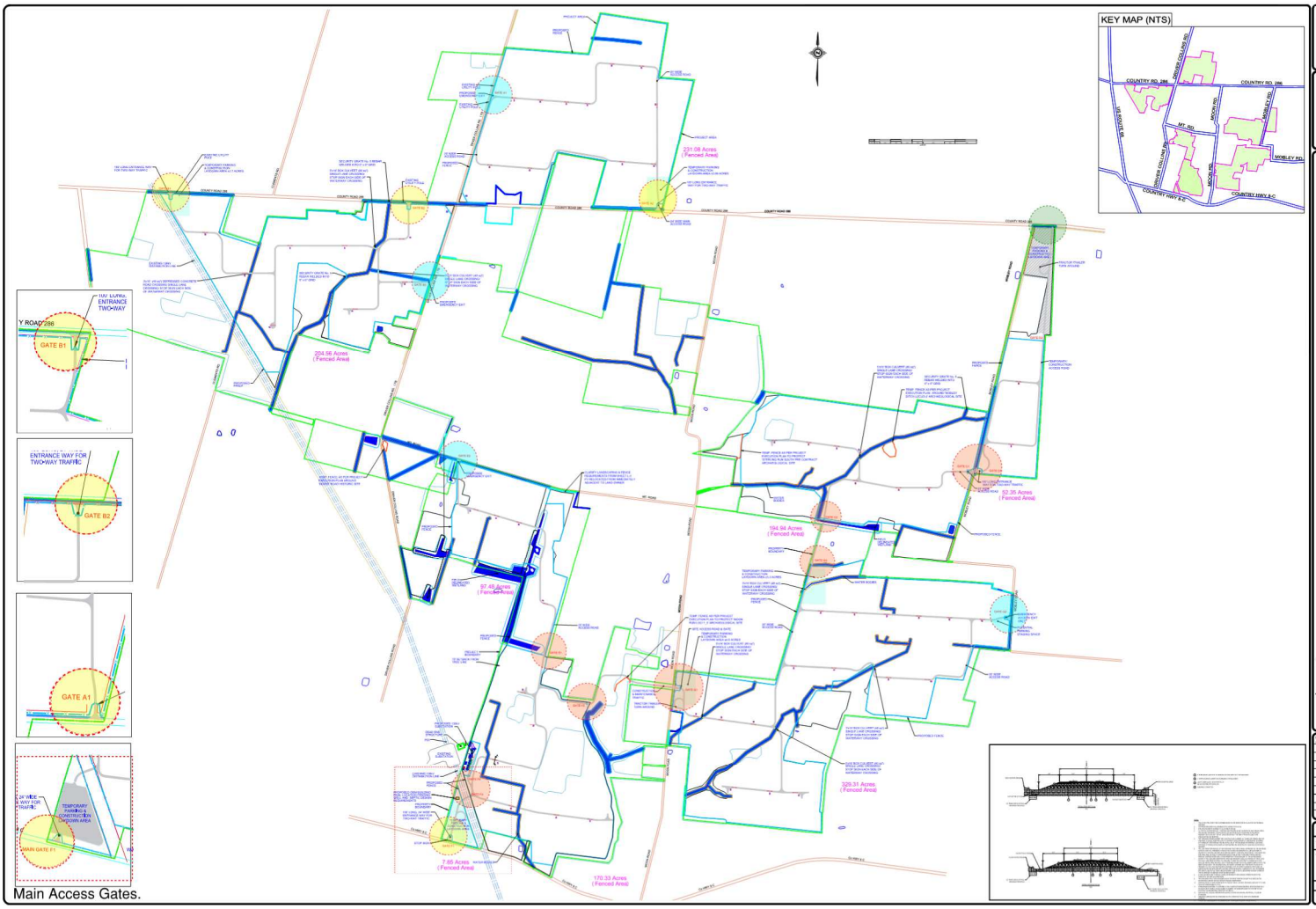
- The Driver will have ample notice of where he/she is going. The notice will be completed by email or phone call. Giving ample notice for direction will reduce the chances of missed exits, causing delays to the neighbouring community roads.
- Once the driver has arrived at the site, he/she will be met by a PCL employee for further direction. Upon leaving the driver will be given exit instruction.

8.2. Final Delivery Route

In order to ensure final delivery of all major equipment comes to the correct gate and completed without incident. PCL will coordinate, with the vendor via on-site meetings or Emails to ensure;

- Confirmation of delivery date and time. Due to the frequency of some equipment, PCL will have a time slot devoted to deliveries. PCL will request that all drivers meet their times to avoid any backlog, as parking and delivery zones will be tight. PCL will instruct the Vendor to call in advance if their driver is delayed. Delivery is expected to take 1h 30min to complete. This time has been calculated using one crew consisting of telehandler operator and labour removing modules from an enclosed trailer. This crew will be able to handle 6 module loads per day.
- Confirmation directions to the correct gate. All Deliveries will be set to the Red circled gates. Example Gate F1 (located Parcel F Laydown) See Appendix A. Other acceptable gates G-A1, G B1, and G B2
- The driver will also have instructions, from the vendor, in advance to where he/she will be asked to wait/park for PCL direction. At this time the driver will;
    - Receive orientation.
    - Sign in
    - Provided a delivery slip for the shipment
    - The driver is not to start offloading or drive onto the site until he/she is directed by offloading sub-trade. After offloading is complete, the driver will sign out and exit the site.

9. APPENDIX A TRAFFIC GATE PLOT PLAN



Main Access Gates.

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TORONTO DISTRICT
2201 Brand Creek, Suite 100
Cambridge, Ontario, N3H 5K8
Phone: 905-275-7500

LEGEND
- PROJECT SITE BOUNDARY
- PROPOSED FENCE
- PROPOSED GRAVEL ROAD
- INVERTER STATION
- Temporary gate with major delivery access
- Through traffic gate
- Major delivery gate
- Emergency Support Gate

No.	Initials	Date	Description
1	JD	7/24/2019	IRL-ISSUED IFC DESIGN PACKAGE
0	AM	7/27/2018	DFL DESIGN PACKAGE

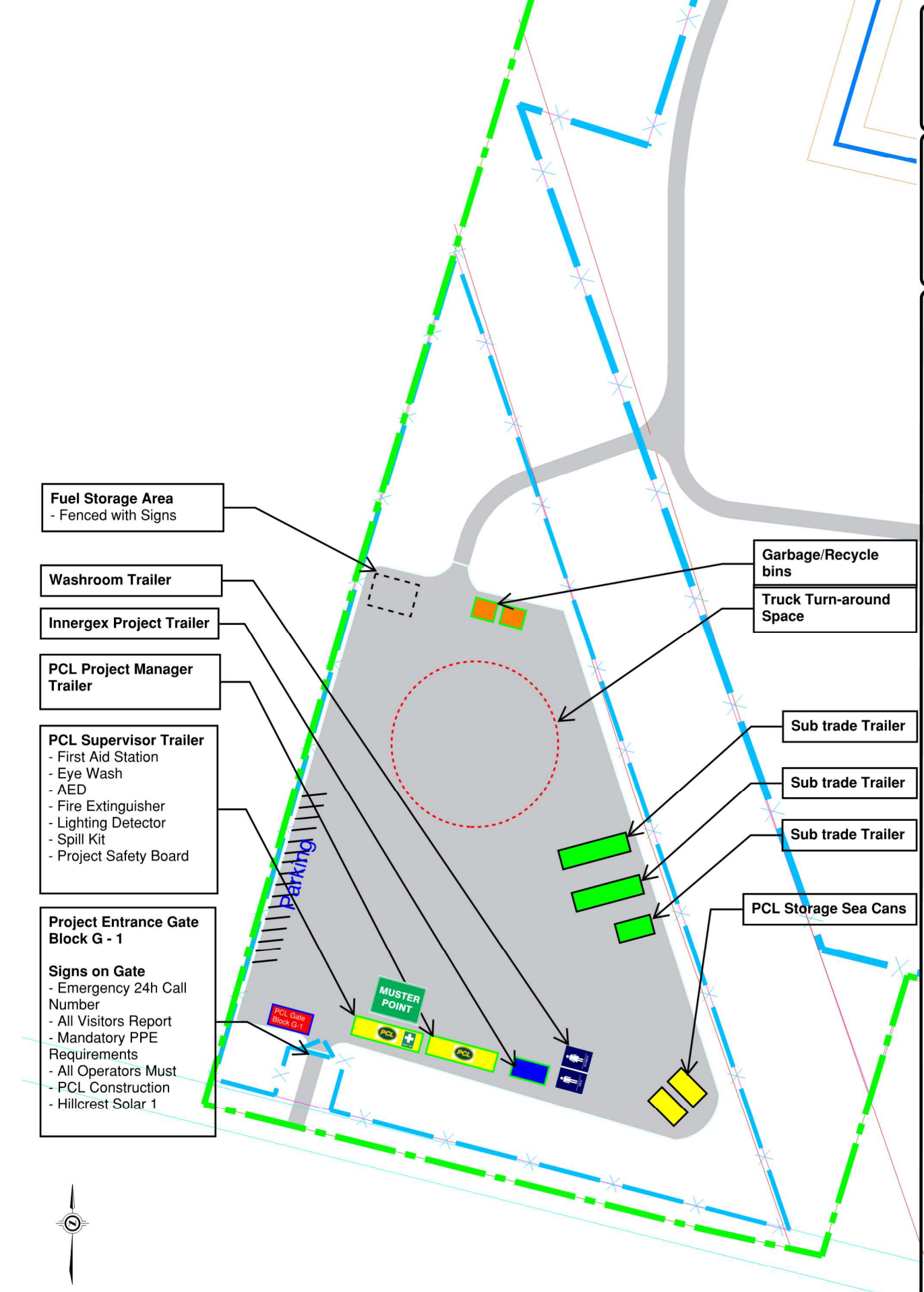
Plot Scale: AS SHOWN
Date: OCT. 21, 2019
Drawn By: D. A.
Checked By: W.S.

Sheet Title: Gate Location and Access

PCL Job No.:

Sheet No.: 1 of 1

C-02



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Phone: 905-276-7600

LEGEND

- PROJECT SITE BOUNDARY
- PROPOSED FENCE
- PROPOSED GRAVEL ROAD

30% DESIGN PACKAGE NOT FOR CONSTRUCTION

Lay Down Area Block G

Summary: Report Notice of Compliance with Certificate Condition 27 - Traffic Management Plan_TCP01 electronically filed by Ms. Julia M Mancinelli on behalf of Hillcrest Solar I, LLC