

Maryland Department of Transportation  
State Highway Administration

SOP No.: 5300.100.41  
Effective Date: July 7, 2023

Approved by: Andre Fitzrell  
Chief Operating Officer

Date: 1-4-24

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**External iPad Requirements for Use with SHA eConstruction Related Activities  
Standard Operating Procedure (SOP)**

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Purpose

The purpose of this SOP is to establish the updated minimum requirements for mobile devices for consultant construction management and inspection staff who are working on Maryland Department of Transportation State Highway Administration (SHA) projects. Consultant Firms shall provide mobile devices to all construction project engineers, office engineers and field inspectors to support the use of e-Construction. Required devices include but shall not be limited to both a smart phone and iPad.

The SHA Office of Construction (OOC) adopted a mobile-first approach that allows field employees to work with a device that many are already familiar with. The value of mobile devices is especially clear with our field employees and consultants. Mobile apps streamline our field operations by easily communicating project data, daily activities, schedules and needed resources while on a project. With access to relevant and timely project and customer information, field staff resolve customer issues more efficiently. This benefits all stakeholders, because simply providing employees a mobile device with both internal & publicly available apps won't necessarily make their job easier. If the device does not provide useful information, is not able to connect to back-end systems efficiently or help make digital reporting easier, it will likely cause frustration and prove less helpful than pen and paper. This has enabled our employees to do their job more efficiently, and with greater security. Our internal mobile apps are integrating with back-end systems as efficiently as possible, bringing relevant information to the device in a timely, secure and user-friendly manner. This allows for a simple user interface and easier connection to update data. By integrating a mobile workforce with mobile apps to improve workflow, this is increasing employees' productivity.

Reference

Department of Information Technology (DoIT) State of Maryland Information  
Technology Security Manual  
MDOT 276 Email and Internet Usage Policy  
SHA 5230.600.02 Mobile and Wireless Device Rules of Engagement SOP  
SHA OIT – Mobile Devices Apple ID Memo - December 22, 2017  
SHA OIT – Cell Phone Directive (Policy)

### Scope

This SOP is applicable for all Consultant Firms providing construction inspection staff to SHA projects that utilize SHA eConstruction platforms. **This SOP replaces Construction Directive 07220.100.41 with updated information.**

### Responsible Party

SHA Chief Operating Officer  
SHA Deputy Administrator for Hanover Offices  
SHA Administrator for Project Development

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## PROCEDURE

Consultant Firms shall consult the Assistant District Engineer of Construction (ADE-C) at their assigned district(s) or the OOC regarding approved devices and recommended accessories. The current device requirements for both a smart phone and iPad, along with recommendations of accessories are noted below:

### 1. 2023 Mobile Device Requirements

Consultant Firms shall provide mobile devices to construction project engineers, office engineers and field inspectors to support the use of e-Construction.

Required devices include but shall not be limited to both a smart phone and iPad. Firms shall consult the ADE-C at their assigned district(s) or the OOC regarding approved and recommended devices.

#### A. Smartphone

1. Wi-Fi + Cellular
2. Data Plan: **\*\*Adequate GB to perform Job Duties\*\***
  - i. If the device becomes Lost, Stolen or Damaged: Acceptable turnaround time for repair or replacement = 3 Business Days.

#### B. Tablet

1. Model: Reference "Apple iPad Supported Model Comparison Chart" shown below
2. Screen Size: Minimum 10.2"
3. Storage Capacity: Minimum 64GB
4. Wi-Fi + Cellular – All models referenced below.
5. Data Plan: Unlimited
6. If the device becomes Lost, Stolen or Damaged: Acceptable turnaround time for repair or replacement = 3 Business Days
7. Software /Apps: As specified by SHA-OOC (See Recommendations below)

### Apple iPad Supported Model Comparison Chart

<b>Legend:</b>	<b>Not available for purchase from Apple</b>	<b>Currently available for purchase from Apple</b>
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<u>Model</u>	<u>Release Year</u>	<u>Screen Size</u>	<u>Capacity (Minimum)</u>	<u>End of Production</u>	<u>Final Supported OS</u>	<u>Support Status</u>	<u>Support Lifespan</u>
iPad 9 <sup>th</sup> Gen (A2603)	2021	10.2"	64GB	Current	Latest iPad OS	Active	2yr 1mth
iPad 10 <sup>th</sup> Gen (A2757)	2022	10.9"	64GB	Current	Latest iPad OS	Active	11mth
iPad Air 3 <sup>rd</sup> Gen (A2153)	2019	10.5"	64GB	9/15/2020	Latest iPad OS	Active	4yr 6mth
iPad Air 4 <sup>th</sup> Gen (A2324)	2020	10.9"	64GB	3/8/2022	Latest iPad OS	Active	3yr
iPad Air 5 <sup>th</sup> Gen (A2589)	2022	10.9"	64GB	Current	Latest iPad OS	Active	1yr 7mth
iPad Pro 2 <sup>nd</sup> Gen (A1709)	2017	10.5"	64GB	3/18/2019	Latest iPad OS	Active	6yr 4mth
iPad Pro 1 <sup>st</sup> Gen (A2013)	2018	11.0"	64GB	3/18/2020	Latest iPad OS	Active	4yr 11mth
iPad Pro 2 <sup>nd</sup> Gen (A2068)	2020	11.0"	128GB	4/20/2021	Latest iPad OS	Active	3yr 5mth
iPad Pro 4 <sup>th</sup> Gen (A2435)	2022	11.0"	128GB	Current	Latest iPad OS	Active	11mth
iPad Pro 3 <sup>rd</sup> Gen (A2301)	2021	11.0"	128GB	10/18/2022	Latest iPad OS	Active	2yr 5mth
iPad Pro 2 <sup>nd</sup> Gen (A1671)	2017	12.9"	64GB	10/30/2018	Latest iPad OS	Active	6yr 4mth
iPad Pro 3 <sup>rd</sup> Gen (A2014)	2018	12.9"	64GB	3/18/2020	Latest iPad OS	Active	4yr 6mth
iPad Pro 4 <sup>th</sup> Gen (A2069)	2020	12.9"	128GB	4/20/2021	Latest iPad OS	Active	3yr 6mth
iPad Pro 5 <sup>th</sup> Gen (A2461)	2021	12.9"	128GB	10/18/2022	Latest iPad OS	Active	2yr 5mth
iPad Pro 6 <sup>th</sup> Gen (A2764)	2022	12.9"	128GB	Current	Latest iPad OS	Active	11mth

\*\*\*\*Apple Device needs to be compatible with latest iPadOS updates\*\*\*\*

**NOTE:** Apple provides a new version of the iPad's operating system (iPadOS) each year. These iPadOS updates include new features, bug fixes, and improved security.

2. Recommendations

A. Case

1. Case Types: Otterbox Defender Series (Protection)
2. Carry Latch System: Otterbox Latch II Utility Series (Carry Holster)

3. Field Apps **\*\*Required\*\***

- A. eMCMS Web App (Hyperlink – Shortcut Added to Home Screen)  
<https://emcms.mdot.maryland.gov/web/>
- B. eMCMS Mobile App
- C. Lane Closure Permits (Hyperlink – Shortcut Added to Home Screen)  
<https://shalaneclosurepermits-mdotgov.msapproxy.net/lcp/#>
- D. iOS Measure (Native)
- E. MMS Login (Hyperlink – Shortcut Added to Home Screen)  
<https://mms.sha.maryland.gov>
- F. ArcGIS Collector Mobile App
- G. Google Earth Mobile App
- H. DOT E-Ticketing (DOTSlip) Mobile App
- I. OED Toolkit (Hyperlink – Shortcut Added to Home Screen)  
<https://apps.roads.maryland.gov/oedtoolkits>
- J. PaveCool Mobile App
- K. SHA Internet (Hyperlink – Shortcut Added to Home Screen)  
<https://roads.maryland.gov/pages/home.aspx>
- L. O365 My Apps (Hyperlink – Shortcut Added to Home Screen)  
<https://login.microsoftonline.com>
- M. Standards & Specs (Hyperlink – Shortcut Added to Home Screen)  
<https://www.roads.maryland.gov/mdotsha/pages/Index.aspx?PagelD=122>
- N. OOC Forms (Hyperlink – Shortcut Added to Home Screen)  
<https://www.roads.maryland.gov/mdotsha/pages/OOCForms.aspx?SA=Forms&PagelD=115>

4. Microsoft Apps **\*\*Required\*\***

- A. OneDrive
- B. SharePoint
- C. Teams
- D. Outlook
- E. Word
- F. Excel
- G. PowerPoint
- H. Lens

5. Navigation Apps **\*\*Required\*\***

- A. iOS Maps (Native)

- B. Google Maps Mobile App
- C. Waze Mobile App
- 6. Weather Apps **\*\*Required\*\***
  - A. The Weather Channel Mobile App
  - B. AccuWeather Mobile App
  - C. Wunderground Mobile App
  - D. NOAA Weather Radar Mobile App
- 7. Reading Apps **\*\*Required\*\***
  - A. Adobe Acrobat Mobile App
  - B. iOS Books (Native)
- 8. Training Apps **\*\*Required\*\***
  - A. NHI FHWA (Hyperlink – Shortcut Added to Home Screen)  
<https://www.nhi.fhwa.dot.gov/course-search?res=1>
  - B. TC3 AASHTO (Hyperlink – Shortcut Added to Home Screen)  
<https://tc3.transportation.org/training-resources/>
- 9. SHA Administrative Apps – **\*\*Required\*\***
  - A. Workday Mobile App \*Only SHA Devices\*
  - B. POSC (Hyperlink – Shortcut Added to Home Screen) \*Only SHA Devices\*
  - C. MDOT Jobs (Hyperlink – Shortcut Added to Home Screen) \*Only SHA Devices\*
  - D. MD State Job (Hyperlink – Shortcut Added to Home Screen) \*Only SHA Devices\*
- 10. Standard Apps **\*\*Required\*\***
  - A. VMware Hub (Device Info) Mobile App \*Only SHA Devices\*
  - B. VMware Content (Repository) Mobile App \*Only SHA Devices\*
  - C. SHA AirWatch (Hyperlink – Shortcut Added to Home Screen) \*Only SHA\*
  - D. iOS Find iPhone (Native)
  - E. iOS Voice Memo (Native)
  - F. iOS Calendar (Native)
- 11. iOS Dock Bar **\*\*Required\*\***
  - A. iOS Safari (Native)
  - B. Google Chrome Mobile App
  - C. iOS Camera (Native)
  - D. iOS Photos (Native)
  - E. iOS Notes (Native)
  - F. iOS Files (Native)
  - G. iOS Settings (Native)

**NOTE:** All lost or stolen devices utilized for accessing SHA systems or programs online must be reported to SHA IT personnel. Please use the incident report form in the additional authorized document section, below.

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## ADDITIONAL AUTHORIZED DOCUMENTS

SHA OOC – Construction Directive 07220.100.41 Mobile Devices  
SHA OIT – DGS-950-8 Lost or Stolen Device Report Form

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## ADDITIONAL INFORMATION

### Other Division Impacted

Varies, please refer to individual SOP.

- Office of Construction
- Office of Information Technology
- Office of Environmental Design
- Office of Structures
- Office of Traffic and Safety
- Office of Maintenance
- All 7 District Offices
- I-495 & I-270 Program Office

### Contact Information

Office of Construction Director