January 18	Discussion only, No Votes taken.
February 15	Discussion only, No Votes taken.
March 15	Meeting Cancelled.

January 19 **Teams Channel for CAD Standards** Proposed making a request for the Channel

Committee approved:

(Will to follow up)

Surface Leader Label – Topic 3

Vote to move cell A_AhSurface from Bridge.cel to ODOT.cel

Committee approved:

February 16 Profile Existing Ground Line Style – Topic 3

Proposed changing the line weight in the Existing Ground line style from weight 2 to weight 1 E_RDWY_PROF_Ground

Name:	ame: E_RDWY_PROF_Ground	
Description:	Design file: profile existing ground line	

Symbology ByLevel				
Color:		2	•	
Style:	3		•	
Weight:	2		•	
Material:		(none)	•	

Committee approved:

Discussion followed around somehow posting these decisions logs to manuals/manual web page, and EAST providing a link when they publish updates. Suggestion made to place all in one searchable pdf.

Committee approved:

March meeting canceled.

April 20 CAD Standards Committee TEAMS Channel – Topic 3

- Move relevant document files from network location to TEAMS
- Create Archive folder on network for unmoved files
- Create separate TEAMS channel for Agenda build chat

Committee approved:

Weld symbols Leaders – Topic 4

Pursue the creation of a MicroStation tool for drawing a weld symbol

Committee approved:

May 18 Title sheets for stand-alone projects – Topic 2

• Standard format using A01 and A02 to be used regardless of project size

Side bar topic

• Pursue creation of a maintenance title block cell, including one for 8.5" X 11" size sheet

Committee approved:

Terminology in Plans – Topic 3

- Sawcut (one word) is correct spelling
- Each terminology decision is to be add to Construction Notes Composition in the OCM

Committee approved:

Standards updates – Topic 4

Rename Part 800 of OCM to "Standard Contract Plans Terms and Abbreviations"

Committee approved:

June 15Level Name of Terrain (Surface) Line Displayed in
2D/3D Plan, Cross Section and Profile – Topic 4

Specific Proposed Actions:

Create a new level named E_TERR_DSPLAY_Ground;

Description: Existing Ground Terrain Parent Level; ByLevel Properties: CO=2 (green), LC=3 (long dash), WT=1

Modify the six (6) "Existing_" terrain element templates to change the level name from E_RDWY_PROF_Ground to E_TERR_DSPLAY_Ground.

Committee approved:

July 20 Discussion only, No Votes taken.

August meeting canceled.

September 21 Information and Discussion only, No Votes taken

October 19 New Text Styles: ODOT Notes-masked and ODOT Major Stations-masked – Topic 3

No opposition to adding the styles to the workspace, will not become default due to opposition.

Committee approved:

Standard Pattern Naming Format - Topic 6

See CAD Standards meeting minutes file (Minutes_2022-10-19)

Committee approved:

November meeting canceled.

December 21 New Roadway Levels for ADA – Topic 3

LINE STYLE: tactile_DGS-1 & tactile_DGS-2

LEVEL NAME: P_RDWY_ROAD_DectSurfaces [this level would also be used for the DWS (detectable warning surface) tactile truncated domes, presently placed on the P_RDWY_PLAN_Detail level] [side note - a new appearance for the DWS tactile truncated domes is currently also in development]

COLOR: 4 (YELLOW) Line Style: 0 WEIGHT: 2

TRANSPARENCY: 0% (not transparent)

Committee approved:

Gray Shading in Plan Sheets - Topic 5

The group agrees that there are appropriate uses for transparent area fills on plan sheets. Everyone also agreed that there are inappropriate uses for transparent area fills.

Vote: Transparency & transparent area fills can be used in certain circumstances, as approved by the Sr. Standards Engineer, in coordination with discipline CAD leads. PCO will be instructed to work with the Sr. Standards Engineer to determine what is an appropriate use, and transparency & transparent area fills are not a reason to reject plan sheet submittals at PS&E.

Committee approved:

Items that need to be addressed:

Gray Shading - Affects the color of the element. Established by Pen Tables during printing process (This typically applies to lines, but a filled shape on a level that gets gray shaded by the Pen Table will be opaque. **Area Fills** -

Transparency - Affects the Opacity of the element. Opacity manually applied to line work (or area fills) by the CAD user.

January 20	Information only, nothing to approve
February	Meeting Cancelled
March 17	Information only, nothing to approve
April 21	Information only, nothing to approve
Мау	Meeting Cancelled
June	Meeting Cancelled
July 21	Information only, nothing to approve
August 18	Check Mark Cell – Topic 3 Propose replacing all check mark cells with Wingdings font text symbol.
	Committee approved:
	East will add the check mark as a favorite symbol in the text editor and it will be added as a cell in the ODOT.cel. The symbol and cell cannot be italics as it affects the appearance.

September 15 **Borderfull Cell & Bordernotes Cell – Topic 2** Revised Borderfull and Bordernotes cells.

Committee approved:

East will include in the September Workspace update.

Check Mark Cell – Topic 4 August topic revisited.

Two Survey check mark cells with specific uses, need to remain.

Committee approved:

Keeping Survey cells in the cell library.

October	Meeting Cancelled
November 17	Information only, nothing to approve
December	Meeting Cancelled

January 15 Abbreviations - Topic 2

The abbreviations for station, left, right, and elevation are shown as lower case but should be capitalized because this is a proper name for the item. For example Sta. 13+63.49 15'Rt. Is the full proper name of a point and therefore would be capitalized just like David Joe Polly is a full proper name.

Committee approved.

Add N for Northing and E for Easting as these were over looked.

Committee approved.

	<u>Proposed</u>	Committee Approved
Bottom Face Curb	BFC	BFC
clear space	clr. sp.	cl.sp.
Counter Slope	CS	CS
Cross Slope	XS	XS
Finish Grade	FG	FG
gutter	gtr.	gtr.
Gutter Slope	GS	GS
Level Area	LA	LA
Ramp Run Number	RRN	RRN
Top Back of Curb	ТВС	ТВС
Top Face of Curb	TFC	TFC
Turning Space	TS	TS

Proposed Curb Ramp abbreviations:

Committee approved.

Striping Task – NOA: 2

Frank Belleque's Proposal for striping plans.

1) Update Striping.cel file by Adding New Cells and Modifying a Cell and Changing Names – Cells include:

- a. BIKE_DD BICYCLE DETECTOR MARKING
- i. New cell to match drawing in most current Traffic Line Manual

- b. BIKE_B BIKE BOX STENCIL
- i. New cell to match drawing in most current Traffic Line Manual
- c. BIKE_BLS BIKE LANE LEGEND W/LEFT/STRAIGHT ARROW
- i. New cell to match drawing in most current Traffic Line Manual
- d. BIKE_BRS BIKE LANE LEGEND W/RIGHT/STRAIGHT ARROW
- i. New cell to match drawing in most current Traffic Line Manual
- e. BIKE_BS BIKE LANE LEGEND W/STRAIGHT ARROW
- i. Updating arrow in cell to be correct proportions
- f. I also updated names of most cells to be more consistently organized. For example "CATTLE_GUARD" became "MISC_CG" to match the task outline as well as our manual. I can provide a full list of these name changes if anyone needs them.

2) Update Traffic Striping Task Menu:

Update the task to current terminology and include new cells that are now in our standards. The above new cells from item 1 will be added and all task items will have the callout at the beginning for more consistency. For example, "Shared Lane Marking" would become "SLM: Shared Lane Marking" to match other bike tasks like "BS: Bike Symbol with Arrow". This makes everything consistent with itself and match our manual. For full list of changes see the excel file in the link provided.

3) Update "Place Striping Note" Tool:

Make it match everything else and add the new cells from task 1. Along with changing names it will be reorganized to have more categories in the drop down so the lists are smaller. That change would make it match the Task Outline and this was one of the main points of the request

from region. See excel file, in the link below, for full list of proposed changes.

\\XLE7611FB\share\Feb2020_WorkspaceUpdate_Striping\For_CAD_Standards_ Review

Committee approved all 3 parts by email.

February 18 Survey Data Sheets - Topic 2

Dave worked up a proposal to modify ODOT.cel and seed_titleblock.dgn to address the Survey Data Sheets to list "Surveyor" and not "Designer".

The proposed changes were approved.

Note: due to the software changes the implementation of this change is not in the official cell library and seed file. After the software update this will be added.

Approved but not implemented

March Meeting Cancelled

April Meeting Cancelled

May 20 Standard Abbreviations - Topic 2

Bicycle Channelizing Devise	BCD
Crosswalk	xwalk
High Density Polyethylene	HDPE
Hexagon	hex.
Pedestrian Accessibility Route	PAR
Pedestrian Channelizing Devise	PCD
Temporary Pedestrian Accessibility Route	TPAR
Committee approved these addition	ns to the CPM.

New Arrow Type for Curb Ramp Flares - Topic 3

Proposal to create a new curb ramp arrow symbol that looks like a Star Trek symbol. This arrow is for the curb ramp flares that are 10% or less slope. **Committee approved the Concept.**

(ADA team will finish the design and get it out to drafters as an interim until updates to the new software can be made).

June 17 Dimension Criteria - Topic 2

Proposed dimension criteria.

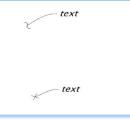
- 1) Distance from the article to the first dimension line of 3 times the text height.
- 2) Other dimension lines are at intervals of 2 1/2 time the text height.
- 3) Dimension text is place above the dimension line 0.25 time the text height.
- 4) Double arrow head on a dimension line indicate the dimension continues off the page.
- 5) When dimensioning curved shapes, extension lines begin at the normal distance from the article and are moved away from the curved surface such that it is easily seen the extension line does not touch the curved surface.

Committee approved.

Leader Terminator Styles for Surface and Points – Topic 4

Proposed Terminator Styles.

The "squiggle" terminator is to be used for labeling a surface. The "plus" terminator is to be used for labeling a specific point on a surface.



Committee approved.

July 15No approvals

August 19Floating Notes - Topic 3

The core team proposes:

- 1) That floating notes use the same font as Note Text.
- 2) That the title use all capital letters, no underline.
- That the title be GENERAL NOTE(S), SHEET NOTE(S), or TOPIC NOTE(S).
- Single paragraph notes do not have any number designation. Multiple paragraph notes use a number followed by a period to designate that specific paragraph. See examples below
- 5) The multiple paragraphs use a hanging indent.

GENERAL NOTE: Protect existing vegetation to maximum extents possible. See special provisions section 00320 clearing and grubbing.

FOUNDATION NOTES:

- 1. No work this area.
- 2. Protect existing vegetation to maximum extents possible. See special provisions section 00320 clearing and grubbing.
- *3. See sht. GJ-X for water quality swale facility construction and seeding.*

Committee approved.

Add an option for the space, or no space, between paragraphs.

September Meeting Canceled

October 21 Add Title to all Construction Notes – Topic 2

The core team proposed that notes and bubbles style notes use the title "CONSTRUCTION NOTES", "LEGEND", or "SEQUENCE NOTES" using the same font as Detail Minor Title. Place over the first column of notes. See examples for Roadway, Signs, and Bridge plans below.

Committee approved.

Ν

Ν

M

EXN

RSN

CONSTRUCTION NOTES

) Inst. rapid flashing guardrail – 532'

2) Const. major part here – 12

LEGEND

Install new sign (N)

Install new sign (N) on new (M) sign support

Maintain and protect existing sign (N) and support

Remove and save existing sign (N)

CONSTRUCTION NOTES

- 1) Place 4" square drain hole diaphragm beam at low point of each cell.
- 2) Place 4" diameter drain hole through bottom slab at low end of spans, each cell.
- (3) This dimension may be increased to accommodate the prestressing system used. If increased, flare girder stems, reinforcing steel and post-tensioning tendons to the first diaphragm.
- (4) Utility hole through transverse beams, piers, wall, etc.
- 5) Utility hole through transverse beams, piers, wall, etc.
- 6) Utility hole through transverse beams, piers, wall, etc.
- 7) Utility hole through transverse beams, piers, wall, etc.
- 8 Place concrete culvert pipe or galvanized smooth steel pipe (¼" min. wall thickness) under Standard Bridge End Panel at each utility hole, both ends of bridge (pipe ID = hole diameter). Extend from hole in structure to a point 5'-0" minimum beyond the end of the end panel. An oversize hole (1" larger diameter than the pipe) should be formed into the backwall or Beam-E. When the pipe is installed, the void around the pipe should be filled with a compressible material.

November 18 No approvals

January 19	Extension Lines Format
	Approved extension line gap and tail to be equal amounts and that they both equal $2/3$ of the text height or 5' on 1'' = 100' scale.
	This will be reflected in the dimension style in the workspace.
February 20	New Standard Line for Intelligent Compaction
	Approved new standard line for Intelligent Compaction: Level: P_RDWY_Road_Laneline Color: 12 Line Style: 4 Weight: 2 Class: Construction
March 20	No Decisions Made
May 15	No Decisions Made
August 21	Title Block for Curb Ramp Details Approved modification of add-on boxes for bridge and traffic data to include curb ramp data when used on curb ramp detail sheets in the roadway portion of the plans.
	TPAR Line Styles Approved new TPAR line style for Traffic Control discipline. Level: P_TRAF_TCP_GENERAL Color: 6
October 16	Hydraulics Perforated Pipe Approved changes to Hydraulics drafting standards and usage in MicroStation. New element template for perforated pipe Linestyle change

New level P_HY_STORM_PipeRemAbandon Modify task in the Roadway Drainage group Copy Drainage and Open-Channel task groups in Roadway Drainage - to Stormwater in Geo Hyd Env, for ease of use by both disciplines.

True Type Fonts January 17 Fonts used for traffic sign text was ODOT 33, ODOT 42, and ODOT43 are now True Type Arial. **Annotation Scale Bar** Approved scale bars that annotate units based on the file scale to be added to cell library and task tabs. February 21 Contours Approved Proposal 1 - add a new text style named ODOT Contours, no italics, TX=0.00525, "Background" on, Fill color = BG, Background Border Offset X=0.50 and Color = BG. Approved Proposal 2 - add new tool in General>Tools named Change Text to ODOT Contours. Change Text Attributes only 2 options; Text Style = ODOT Contours, Annotation Scale on. March 21 CAD Standards Committee Charter Approved Committee Charter. Dave to add "Vacant" for the Construction position in the membership list. April 18 No Decisions made May 09 No Decisions made June 20 **Curb Ramp Details- Approved items** 1. Corrections to be made (Information only) a. "CL Plans Detail" was named incorrectly, this was a mistake - Mindy will change that to

"Gutter/Curb Center Line"

- b. "Saw Cut" changed to "Sawcut" Mindy will make that change with Dave Polly's instruction to ignore spell check
- c. Roadway>Construction>Sidewalk Ramps tasks, no response was received prior to update – Mindy will move items to Roadway>Curb Ramp Details tasks and order of all tasks will be set by Dave Polly.
- 2. Display task name update:
 - a. Old name: Crosswalk Line

New name: Intended Crossing Line

b. Old name: Edge Turn Space

New Name: Clear Space Outline

- 3. Level Assignments:
 - a. "Concrete Walk" and "Slope Break/Tool Line" draw on P_RDWY_ROAD_Sidewalk (this level is shared by all sidewalk modeled by roadway designer)
 - b. "Gutter/Curb Center Line" draw on
 P_RDWY_ROAD_Curb (the line that shows the curb line to be constructed)
- 4. New level:
 - a. P_RDWY_ALIGN_Curb; CO=6; LC=6; WT=2
- 5. Add to Curb Ramp Details task CL Curb
 - a. Tool tip use for alignment of curb at curbramp location
 - b. Use new level P_RDWY_ALIGN_Curb attributes

July	No Meeting
August 15	Brain Storm – Overarching Drafting Rules for the CPM
	Approved list of items to be covered.
	 1) CAD Standards Committee approved standards – not documented elsewhere in the manual. 2) Isometric Drafting Rules 3) Overall project layout – always ahead on line by either stationing or mile point (Sheet progression) 4) Every plan view sheet has a North Arrow 5) Orientation of text other than stationing - Include the text wheel. 6) General note format on sheets vs. construction notes. 7) Space between construction notes on plans. 8) Define which sheets get a V number. 9) Order of precedence in the Standard Specification. (From Section 00150.10(a) in the Standard Specification) 10) Use of ODOT Standard Details – This might fit better in that chapter. 11) Plan view versus detail – larger scale for detail. 12) ODOT work space is the controlling source when documentation is in conflict. 13) If advance plan milestone is completed when changes occur, drafting updates do not need to occur for that project. (Standard implementation)
	Index Sheets & Layout Sheet location in the Plan Set
	Approved:1) A Layout sheet includes the sheet cut lines for the project area2) An Index sheet includes a map with or without a table but does not show the specific sheet cut lines.

3) Layout or Index sheets for cross discipline use are in the "A" series

4) Roadway Layout, Geotechnical Layout, and Survey Data sheets, as documented in the CPM are in the "A" series. 5) Index sheets that are for a specific discipline are to be in the first sheets in that discipline's specific series.

September **No Meeting**

October 17 New Print Style for Curb Ramp Details and Layout Sheets – Rename Print Styles

Approved Proposal for a new print sytle for curb ramp details.

Approved proposal for a new print style for interchange layout sheets.

Approved proposal to rename print styles was discussed and a modification to the proposal.

The print style names approved have a format that begins with a two digit number. The two digit number allows for a custom sort. The print style name ends with the ANSI paper letter designation and the numeric paper size. For example "_B11x17".

November 28 **Dimension Style Feature**

Approved:

1. Dimension arrows to be a ratio of 1:3 and measured 3 x 9 at inch 100' scale

2. Leaders to use curves instead of angles.

3. Dimensions to be placed above the solid

dimension line for single line text and first line above and remainder text below dimension line.

December

No Meeting

March 15 Plan sheet numbering. Concept approval for some plan sheets to use a 3 digit numerical value. This will be published in the CPM. March 15 Auto-file information on plan sheets Concept was approved for the autofill data to only include filename, print date and time, model name, and user name. Show on far left bottom of the sheet. Specific pen tables will be identified for adjustment.

August 16 Plan sheet titles on numbered levels

Committee approved the use on numbered level for plan sheet titles.

September 20 New Levels

Traffic requested new levels:

P_TRAF_SIGNAL_TEMP_Equipment_Initial P_TRAF_SIGNAL_TEMP_Equipment_Final P_TRAF_SIGNAL_TEMP_Detector_Initial P_TRAF_SIGNAL_TEMP_Detector_Final P_TRAF_SIGNAL_TEMP_Poles P_TRAF_SIGNAL_TEMP_Cabinets P_TRAF_SIGNAL_TEMP_RPS P_TRAF_SIGNAL_TEMP_Conduit P_TRAF_SIGNAL_TEMP_JB

October 18 New Cells

Roadway proposed new cells:
ElevPt Description: Elevation point
ElevPt_PF Description: Elevation point for Pole Foundation
CounterSI Description: Counter slope (Arrow with 2 point placement)
SI1-5Max Description: Slope 1.5% Max. (Arrow with 2 point placement)
SI7-5Max Description: Slope 7.5% Max. (Arrow with 2 point placement)

Process for red-line mark-ups

Work flow for some groups is to keep the mark-up files with the project. The mark-up needs to be placed in the discipline ProjectWise folder. Consultant mark-up files will go first into the Temp folder and then will be moved into the discipline folder. Put "Mark-Up" in the description.

Seed file seed_titleblock.dgn file

Concept was approved to continue development and documentation of the seed file for project title blocks on project plan sheets.

2-24-2016	2016 ProjectWise file naming format . The format for filenames within ProjectWise will be:			
Origin ID_Project	tNo_Filename##_b/w/c.dgn Where			
Origin ID	The alpha character identifier of the ID is one to three characters in len	•		
Project No.	A five digit, numeric character iden This can be a project key number, a DFI number.			
Filename##	A short name to identify the type o digit number added to provide unic types of files.	•		
b/w/c	A unique addition for CAD files to id (w) working files, and (c) CAD or d	5		
5-18-16	Lucida Sans Unicode , a true type replace ODOT font 2 (vertical) and Change to occur with the ProjectWi	ODOT font 24 (italic).		
6-15-16	Plan Sheet Numbering . Method f numbering for all disciplines within Plan_Sheet_Naming_v4.1.pdf for d	a single plan set. See		
10-19-16	New Level Display Filter, add a r display dialog box for right of way			
10-19-16	Addition to Task Menu, add a ne Remote Sensing users.	w task menu for the		
12-21-16	Lucida Console , a true type font, replace ODOT font 4.	was approved to		

12-21-16 **ODOT CAD Abbreviation and Acronym list** was approved by the committee for use on CAD developed documents and drawings.

Via Email **One North Arrow cell for contract plans**. This item changed having different sizes and looks to the North arrow used on contract plans. 6-17-2015 **Single title block for contract plans**. This item changes having different title blocks on contract plans sheet for different disciplines. This combines many of the common items across discipline lines into one look and feel for ODOT projects. New Level for Sidewalk Stipple Pattern. Some 6-17-2015 disciplines need to turn off the sidewalk stippling but retain the sidewalk line work. Level Name: P_RDWY_ROAD_SidewalkPattern Description: Sidewalk pattern ByLevel Color: 4 ByLevel Line Style: **0** ByLevel Weight: 1 8-11-15 Modification of the yellowtoblack pen table

Proposal is to modify the pen table to include filling in the data along the border cell. Currently this pen table leaves the default text unchanged. When plotting in color, the data, such as the filename, does not automatically replace the default text. This modification would correct the problem. **Proposal approved by email vote.**

8-19-15 Continuation of dimension line for off sheet and on sheet placement

The proposal to have a uniform method for showing continuation of dimension was approved. When a dimension continues off the plan sheet a double arrow will be used. When the dimension line is shortened but remains on the page, a break in the dimension line will be shown and a single arrow will be used.

10-21-15Title Block Levels

Current Levels	New Level Name	Description	СО	Style	WT
1 Common Title Block and	P_ODOT_PLAN_TBlock	Common lines & Text	144	0	2
Text					
2 ODOT Text	P_ODOT_PLAN_TBCoNam	Company Name	50	0	0
4 All Structure boxes	P_ODOT_PLAN_TBStrBoxes	Structure boxes	144	0	2
(number, calc book)					
5 Brdg. Struct. Name, HWY &	P_ODOT_PLAN_TBBgStrInfo	Bridge Structure Info	50	0	0
MP, date and sheet of					
6 BDS drawing number	P_ODOT_PLAN_TBBDSDwg	BDS drawing number	50	0	0
7 DFI/TSSU box and number	P_ODOT_PLAN_TBdfiTSSU	DFI/TSSU box and	144	0	2
		number			
8 Accompanied by box and	P_ODOT_PLan_AccBy	Accompanied by box	144	0	2
text		& text			
9 Traffic approval signature	P_ODOT_PLAN_TrfcAprv	Traffic approval	144	0	2
box		signature box			
56 Review text	P_ODOT_PLAN_TBStatus	Project Status	3	0	2
		Stamps			
57 Sheet Title	P_ODOT_PLAN_TBShtTitle	Sheet title	50	0	0
58 Sheet/Dwg No	P_ODOT_PLAN_TBShtDwgNo	Sheet/Drawing	50	0	0
		number			

These level are approved by the committee for use with the new unified title block

10-21-15 Proposal is to place leader at the beginning of the note when on the left side and place the leader at the end of the note when on the right side. This proposal was **approved** by the committee.