

## UPDATES ON SAFETY IMPROVEMENTS

GRANT WATANABE, PE, DIRECTOR OF PUBLIC WORKS & ENGR SERVICES JULIO COLUNGA, ASSISTANT DIRECTOR OF PUBLIC WORKS OSCAR MICHAEL GARZA, PE, PTOE, RSP<sub>1</sub> - LEGACY ENGINEERING GROUP JULY 21, 2022

YIELD







PRESENTATION OUTLINE

## AGENDA

- Chartwell Realignment Construction Update
- Existing Stop Signs Requiring City Council Approval
- Proposed Stop Sign Locations
  - Sight Distance Concerns at Water Plant 2
  - Yield to Stop Conversions (General Discussion)
  - Intersection of High Eschelon at Battle Intense
  - Intersection of Battle Intense at Keeneland / Venturer
- Speed Zone Revision on Battle Intense
- Update on Annual Street Maintenance Plan
- Update on HSIP Project / Schedule







## Phase I







Phase IA







## Phase II







Phase III

- Pedestrian safety improvements include stop signs and crosswalks to create 4-leg standard intersection
- Recommendation: Future ordinance to include new Dietz Elkhorn stop sign locations





## **Construction Schedule**

City of Fair Oaks Ranch - Dietz Elkhorn Rd & Chartwell Lane Realignment

PROJECT SCHEDULE																												
		Wed, 7/6/2022																						_				
1				1	Jul 4, 2022			Ju	Jul 11, 2022			Jul	Jul 18, 2022			Jul 25, 2022			Aug 1	Aug 1, 2022			Aug 8, 2022 A					
No.		e	_		456	7	89	10 11	12	13 14	15 16	17 18	19 20	0 21 2	2 23 2	4 25	26 27	28 29	30 3	31 1	2 3	45	6 7	8 7	9 10	11	12 13	14 15
TASK	PROGRESS	START	END DA	AYS	M T V	Т	F S	S M		V T	FS	s M	TN	( T F	5 S S	м	τV	T F	S	S M	τν	TF	<u>s</u> _s	M	T V	Т	FS	S M
SCHEDULE MILESTONES																												
Construction Start Date	100%	7/6/22	7/6/22	0																								
Set-Up SW3P	100%	7/6/22	7/7/22	1																								
Set-Up TCP and Advance Warning Signs	100%	7/7/22	7/8/22	1																								
Storm Drain Installation	100%	7/8/22	7/8/22	0							_																	
Water Line Installation	100%	7/9/22	7/9/22	0																								
Excavation Work	100%	7/10/22	7/10/22	0																								
Chartwell West Half Asphait / Concrete Curb Demo	100%	7/11/22	7/11/22	0																								
Grading of Proposed Chartwell West Half	100%	7/12/22	7/18/22	6																								
Water Tie-In Work (4", 6", and 6")	100%	7/13/22	7/13/22	0																								
Type 8 Asphalt / Full-Closure / Detour of Chartwell / Ramp-Up / Cold Mix (Level Up)	100%	7/19/22	7/19/22	0																								
Shift 2 Lanes of Traffic Back to East Side of Chartwell	100%	7/19/22	7/19/22	0																								
Concrete Flat Work (Ramps / Sidewalk / Curb / Etc.) - West Side	25%	7/20/22	7/27/22	7																								
Once the Curb Along West Chartwell is Installed, Shift Traffic to New Alignment	0%	7/28/22	7/28/22	0)																								
Implement AII-Way Stop Control at Intersection	0%	7/28/22	7/28/22	0																								
Complete Demo of Existing Chartwell / Complete Concrete Flat Work - East Side	0%	7/28/22	8/4/22	7																								
Install Final Driving Surface	0%	8/3/22	8/4/22	1																								
Install Final Pavement Markings & Signage	0%	8/4/22	8/4/22	0																								
Remove All TCP and SW3P Controls	0%	8/5/22	8/5/22	0																								
Substantially Complete / Open for Traffic (Except for Pedestal Area)	0%	8/5/22	8/5/22	0																								
Float Time Available Before First Day of School	0%	8/5/22	8/10/22	5																								
First Day of School	0%	8/10/22	B/10/22	0)																								



#### EXISTING STOP SIGNS NEEDING APPROVAL





- In accordance with Law Enforcement Agreements signed in March 2022, an ordinance is required to enforce traffic rules and laws in the following areas:
  - Elkhorn Ridge
  - Front Gate (Units built after February 2018)
- Recommendation: Future ordinance(s) include all stop signs, yield signs and speed limits within these gated communities





#### SIGHT DISTANCE CONCERN AT WATER PLANT 2



- STOP
- Yield sight distance requirements not met, further reduced by Water Plant 2 Upgrade project
- Recommendation: Future ordinance include changing yield to stop sign





YIELD SIGN TO STOP SIGN CONVERSION CONSIDERATION



- Yield sight distance requirement not met, impacted by road curvature, fencing and vegetation
- Recommendation: Future ordinance include changing yield to stop signs





# STOP











STOP

**Special Considerations:** 

- ✓ Non-Aligned Streets
- ✓ Sight Distance Limitations
- ✓ 3-Way Stop Condition
- ✓ Driver Expectation
- Pedestrian Movements
- ✓ Grades of Approaches









## **Results Of All-Way Stop Warrant Analysis**

### **Does Not Meet Vehicular Warrants**

- Only 1 reported crash at intersection
- Traffic volumes are too low

## Other Criteria Considered in a Traffic Engineering Study

- A. The need to control left-turn conflicts;
- B. The need to control vehicle/pedestrian conflict near locations that generate high pedestrian volumes;
- C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic also stops; and
- D. An intersection of two residential neighborhood collector (through) streets of familiar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.



Consideration: Update analysis with new traffic data and report back to Council

































Special Considerations:
✓ Wider Street (Keeneland)
✓ Higher-Speeds (Keeneland)
✓ Sight Distance Limitations
✓ Pedestrian Movements (Including School Bus Drop-Off at Intersection)

Unchannelized Left Turns









## **Results Of All-Way Stop Warrant Analysis**

#### **Does Not Meet Vehicular Warrants**

- Only 1 reported crash at intersection
- Traffic volumes are too low

## Other Criteria Considered in a Traffic Engineering Study

- A. The need to control left-turn conflicts;
- B. The need to control vehicle/pedestrian conflict near locations that generate high pedestrian volumes;
- C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic also stops; and
- D. An intersection of two residential neighborhood collector (through) streets of familiar design and operating characteristics where multiway stop control would improve traffic operational characteristics of the intersection.



Consideration: Update analysis with new traffic data and report back to Council







**STOP** 

## Alternative to Stop Signs





#### SAFETY ENHANCEMENTS: BATTLE INTENSE

## Speed Zone Revision and Signing





- Replace yellow School Crossing signs at Cibolo Valley/Cibolo Run with fluorescent yellow-green School Crossing signs
- Replace yellow Pedestrian symbols at Cibolo View with fluorescent yellowgreen School Crossing signs
- Install School Bus Stop symbol 400' in advance of Cibolo View
- Install School Bus Stop symbol 500' in advance of Cibolo Valley/Cibolo Run
- Extend 20 mph speed zone northward to Keeneland Drive



x 2





x 4



SPEED

LIMIT

30

R2-1







#### SAFETY ENHANCEMENTS: BATTLE INTENSE

## Speed Zone Revision and Signing



30 mph to remain
30 mph to be reduced to 20 mph
20 mph to remain

Concerns include speeding, passing stopped school buses and multiple speed limit changes in this short stretch

Recommendation: Future ordinance include change to speed limit on Battle Intense



LEGACY ENGINEERING GROUP



#### UPDATE ON STREET MAINTENANCE PLAN







**UPDATE ON HSIP PROJECT** 









## City of Fair Oaks Ranch HSIP Project Approved (CSJ: 0915-00-264) Next Steps / Project Development Schedule:

- Resolution Required from City Council ~ August 2022
- Advance Funding Agreement (AFA) Execution ~ September 2022
- Payment of +/-\$275k to TxDOT 30 Days After AFA Execution ~ October 2022
- Begin Engineering / Plan Development by City ~ October 2022
- Plans, Specifications, & Estimate Submittal by City ~ March 2023
- Payment of +/-\$275k to TxDOT 60 Days Prior to Letting Date ~ May 2023
- Project Letting Date (TxDOT) ~ July 2023
- Construction Schedule ~ Winter 2023 thru Spring 2024





# QUESTIONS/COMMENTS/INPUT

